## State Rank: S4 - Secure

## **Oak - Hickory Forest**



Rocky slope with Oak - Hickory Forest. Photo: Patricia Swain, NHESP.

Description: Oak - Hickory Forest is a somewhat enriched hardwood forest dominated by a mixture of oaks with hickories mixed in at a lower density. They occur on well drained sites, such as ridgetops or slopes, often with SW, S, or SE aspects. The canopy is closed to interrupted (>50% cover), the shrub layer diverse with dense patches, and the herbaceous layer diverse but scattered. The duff layer may be deep with undecomposed oak leaves. Many occurrences are rocky. The forest may include small patches of rock outcrop or Hickory - Hop Hornbeam Forest/ Woodland, and may itself be surrounded by White Pine - Oak or Oak - Hemlock -White Pine Forests.

**Characteristic Species:** In the broadly defined, variable <u>Oak - Hickory</u> <u>Forest</u>, the canopy is dominated by one or several oaks (red, white, and black with scarlet and/or chestnut). Mixed in are lower densities of one or several hickories (shagbark, mockernut, or pignut). Occasional other trees include white ash, black birch, sassafras, and red maple. If

Oak - Hickory Forests are dominated by a variety of oak species, with hickories present in lower densities. A subcanopy commonly present includes hop hornbeam, flowering dogwood, and shadbush.

present, conifers (white pine and/or eastern hemlock) constitute <25% cover. A subcanopy/tall shrub layer (usually 25-50% cover) may include hop hornbeam, flowering dogwood, downy shadbush, American chestnut, and witch-hazel. Low shrubs are often diverse and generally sparse but dense in patches: maple-leaved viburnum, beaked and American hazelnut, and gray dogwood may be present. The herbaceous layer is richer than in many oak forests with silverrod (goldenrod), tick-trefoil, wild sarsaparilla, rattlesnake weed, false Solomon's seal, pink lady's slipper, and patches of long-beaked Pennsylvania sedge or Pennsylvania sedge.

**Differentiating from Related Communities:** Oak - Hickory Forests are in a continuum of dry, acidic oak forests. They are more diverse in all the forest layers than many other oak forests/



Flowering dogwood in Oak - Hickory Forest in the spring. Photo: Patricia Swain, NHESP.

woodlands. The canopies of Oak - Hickory Forests are generally closed or almost closed (averaging >67% cover). White and black oaks usually dominate with scattered red or chestnut oaks. Hickories and scarlet oaks are consistently present but not dominant. Hickory -Hop Hornbeam Forests/ Woodlands have a parklike appearance with a

sparse shrub layer and a distinctive sedge understory. Hickories dominate the canopy with hop hornbeam forming a subcanopy. Dry, Rich Oak Forest/ Woodland might be an open, early successional variant of Oak - Hickory Forests that is maintained by regular or severe disturbance, particularly fire. Both lack abundant sugar maple, basswood, and white ash, and lack spring ephemerals and herbaceous species indicative of rich conditions found in Sugar Maple - Oak -Hickory Forests (SMOHF). SMOHF has fewer legumes and more spring ephemerals and herbaceous species indicative of rich conditions such as herb Robert, wild geranium, and baneberry than Oak - Hickory Forests. Red Oak -Sugar Maple Transition Forests have a greater dominance of red oak and sugar maple than Oak - Hickory Forests and very few hickories. Mixed Oak Forests/ Woodlands lack abundant hickories and flowering dogwood and have a continuous low shrub layer formed by members of the blueberry family not found in Oak -Hickory Forests.



Habitat for Associated Fauna: There are no species known to be restricted to <u>Oak - Hickory Forests</u>. Wide ranging animals would include occurrences as parts of their habitats particularly when acorns are available. Wild Turkeys are primarily found in oak areas. Small animals including mammals, birds, reptiles, and insects would be those of oak forests.

**Examples with Public Access:** Boxford WS (DFW), Boxford; Wachusett Meadow WS (MAS), Princeton; Camels Hump, Petersham; Palmer WMA, Palmer; Moose Hill WS, Sharon.



Rocky hill in Oak - Hickory Forest. Photo: Patricia Swain, NHESP.



Updated: 2016 (508) 389-6360